# ePBX80

## Built-in 8-port or 4-port FXO gateway IP-PBX for small office

ePBX80 Rear view

ePBX80 Front view

**Up to 68 (External 60, built-in 8) registration IP devices**
**Each left Voice mail can be Email to desire Email address**
**Up to 10 NAT Traversal concurrent calls**
**Superior Echo Cancellation on built-in FXO gateway**
**Support BLF Busy Line or Busy Extensions status**
**Record FXO disconnect tone automatically**
**Flexible Auto Attendant**
**Provide Call Detail Record (CDR) in real time**
**Flexible Routes and Dial Plans**

ePBX80 is small SIP based IP-PBX with built-in 8-port or 4-port FXO gateway and allow external up to 60 IP devices to register. Configure both FXO and IP-PBX at the same webpage to reduce extra works during installation. This device is suitable for small office PBX application for inter-office calls or talk to remote office via internet or VPN network. The local incoming call from PSTN Lines can be answered from assigned IP phone or group extensions. It is easy to connect with local PSTN Line or PABX's extensions.

It supports Rich traditional PABX features and flexible connection with other analog Telephony and IP based devices. Calls can be implemented between them by using existing dial behavior without hassle.

### Application

ePBX80 is a SIP IP-PBX device to connect with existing analog PSTN network to receive/make calls and transform to IP device such as IP Phone via built-in 8-port FXO Lines. And also connect to remote



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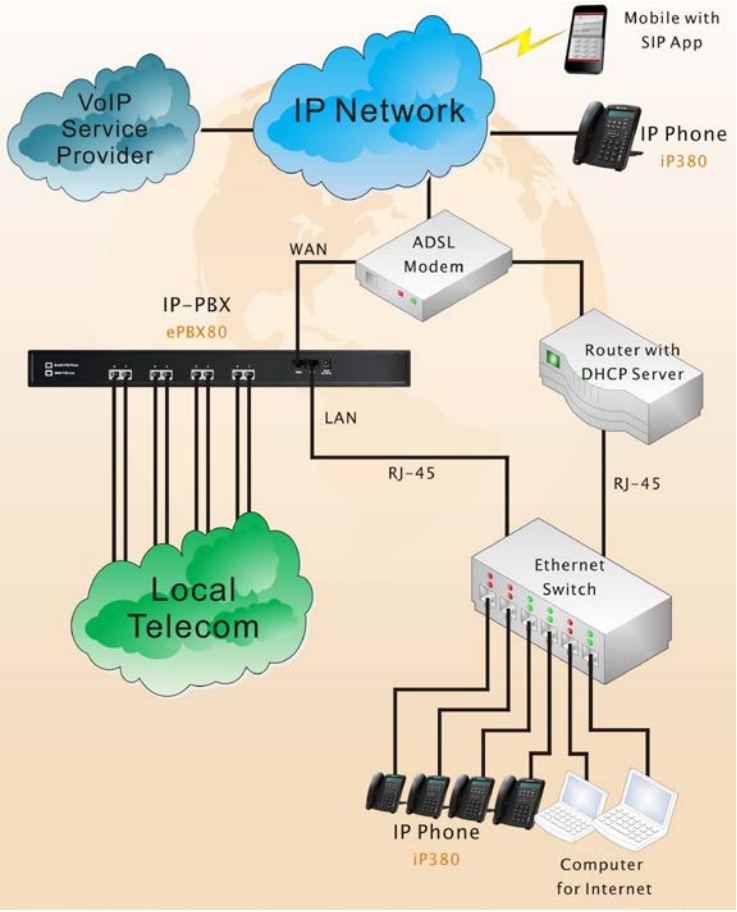
IP-PBX or IP Telephony Service Provider's SIP Server to make IP calls. It allows remote IP devices which were installed behind router to register and make calls. It is compatible with broadband internet service device such as ADSL/Cable Modem and WiMax/3G Modem via WAN port and local IP devices to connect at LAN port to call between WAN and LAN ports. The following diagram is a typical application at small office which install IP Phone and your computer at the local network (LAN) via DHCP mode.




### Busy FXO Lines or Busy Extension (BLF) indication

ePBX80 support BLF features. By connecting an IP Phone with LCD display such as iP380 which has built-in 8 Icons to indicate the current status of your desire FXO line or other extensions.

Here is iP380 IP Phone LCD display. By seeing flashing Icon, you realize the FXO Lines or Extensions are in busy state currently.

## SPECIFICATION

**Interface:**

Ethernet port (RJ-45, 10/100 base-T)
- 1-WAN port, connect to IP Network
- 1-LAN port connect to local network

Built-in 8 ports FXO Lines (RJ-11 x 8 pcs)
DC +12V power input Jack
LED Indicator for System, SIP and FXO/PSTN status
LED is flashing when RJ-11 wire was not connected

**IP Network connection**

IPv4 (RFC 791) for WAN and LAN ports
IP/ICMP/ARP/RARP/SNTP
Static IP
WAN : DHCP, Fixed, PPPoE, DDNS
LAN : Fixed Private IP
PPPoE Client
DDNS ( DynDNS )
DNS Client
NAT traversal for Voice and SIP signals only
Install behind NAT
Remote and local NTP server with time zone configuration
TCP/UDP (RFC 793/768)
RTP/RTCP (RFC 1889/1890)

**SIP Protocol :**

RFC3261 compliance
SIP UDP Protocol
Support SIP compact Form
Support SIP HOLD Type
MD5 Digest Authentication (RFC2069/RFC2617)

**Audio Codec :**

G.711 A-law/μ-law, G.729 pass-through
LEC : Line Echo Canceller
Packet Loss Compensation
Automatic Gain Control



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## Built-in 8-port or 4-port FXO gateway IP-PBX for small office

G.168 Acoustic Echo Cancellation
Dialing Plan with Add and Drop dialing digits
Selectable Disconnect Tone configuration
Support Specified Line Calling

**Call Features (built-in 8-port FXO Lines) :**

Caller ID recognition DTMF (before/after 1st ring) and FSK (before 1st ring ), ETSI and Bellcore
Loop Current Drop Detection to release FXO port
Disconnect tone recognition to release FXO port
Record disconnect tone automatically for further analysis
Each extension can assign one Email address to forward left voice mail.
Superior Echo Cancellation on built-in FXO Gateway
Two sets of Disconnect Tone are available to detect correctly.
Configure Tone Frequency, Cadence, Level and Cycle
Built-in a variety of Country's tone default setting
NAT Traversal configurable
Out-Band DTMF : RFC2833 and SIP Info
Call Waiting Indication
Busy Line Call Monitor : Caller/Called number, start/stop time.
Extension and Trunk current setting indication
Call Forward (Busy, Unconditional, No Answer, unavailable)
Configurable Call and Pickup group
Call Hold
Call Transfer
Call Park
Flexible Dial Plan
Configurable Feature Codes (PABX features) to dal from keypad
Support 2 Offices/Locations call rule to configure
Call-in Rule : desire working/non-working time, Operator Group, desire Auto-Attendant play time.
Outgoing Routing Rule (Drop and Add)
Incoming Routing Rule (Drop and Add)
Extension Group Setting
Hot Line
Configure maximum concurrent SIP or FXO Trunk calls
Desire Trunk ID call
SIP Trunk registration setting
Outgoing SIP Caller ID Selection
Flexible Routing Plan
BLF, Busy Extension Status Indication
ON-HOOK Voltage: -48Vdc

Provide real time CDR to external Billing server or store inside
CDR Storage inside ePBX80 up to 500 records.

**MANAGEMENT :**

Administrative Telnet, CLI and HTTP (Windows IE Browser Only)
HTTP port and user ID, Password control
Telnet port and user ID, Password control
Firmware and Library upload
Hold Tone (Music RBT) File upload
Import(Upload) Configuration, IVR package, IVR(gsm/g729) file
Export(Download) Configuration, IVR package for backup.
Configuration Backup/Restore
Reset to Factory default setting
Soft-Reset or Reboot System
Status display: Line, SIP Trunk status
RS-232 DB9 Console port

**Environmental :**

Physical Dimension: 19-inch chassis, 1U high, 11 CM depth.
Weight: 2.3kg (One unit with packing)
Operating Temp. & Humidity
- Temp.: 0°C~45°C (32°F~113°F)
- Humidity: 10%~90% relative humidity, non-condensing

Maximum Power Consumption: 10 Watts (0.8A at 12Vdc)
Power Adaptor:
- INPUT: AC100V~240V, 50/60Hz
- OUTPUT: DC 12V, 3.0A

**Approvals:**

CE, FCC, LVD and RoHS

**Country of origin:**

Made in Taiwan

**Packing Accessories**

| | |
|---|---|
| ePBX80 main unit | x 1 pcs |
| AC to DC+12V Power adaptor | x 1 pcs |
| CD User Manual | x 1 pcs |
| Rack Mount bracket | x 2 pcs |

**Warranty**

One year

Ordering Information:

| | Built-in FXO Line quantity |
|---|---|
| ePBX80-4 | 4 |
| ePBX80-8 | 8 |

Note: ePBX80-8 with built-in 8 Lines FXO ports is maximum FXO port. If you need more FXO ports, you can install an external 4 or 8 ports FXO gateway (i.e. WellGate 2540, 2680) to expand additional 4 -8 Lines FXO.